

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of manufacturing a thin-film transistor, comprising:

forming a channel region facing a gate electrode through a gate insulating film;
~~forming source and drain regions connected to the channel region in a semiconductor film that is formed~~ channel, source, and drain regions connected to each other
on a surface of an insulating substrate and under a gate insulating film, wherein the gate insulating film is over and entirely covers the channel, the source, and the drain regions; and

forming a recombination center by introducing an impurity into the channel region so that a distance between the recombination center and the drain region is shorter than a distance between the recombination center and the source region,

wherein the recombination center is detached from the drain region.
2. (Previously Presented) The method of manufacturing a thin-film transistor according to Claim 1, wherein said impurity being at least one kind selected from the group including inert gases, metals, Group III elements, Group IV elements and Group V elements.
3. (Previously Presented) The method of manufacturing a thin-film transistor according to Claim 1, wherein a process of introducing said impurity into said channel region is carried out by injecting the impurity from a surface side of said channel region.
4. (Previously Presented) The method of manufacturing a thin-film transistor according to Claim 3, wherein a process of introducing said impurity into said channel region is carried out, after a crystallization process on a semiconductor film so as to form said channel region, by injecting the impurity from a surface side of said channel region.

5. (Currently Amended) The method of manufacturing a thin-film transistor according to Claim 3, wherein a process of introducing said impurity into said channel region is carried out, after a crystallization process on a semiconductor film so as to form said channel region, by injecting the impurity from a surface side of said channel region before a process of forming ~~said a~~ gate electrode on a surface side of the channel region.

6. (Currently Amended) The method of manufacturing a thin-film transistor according to Claim 3, wherein a process of introducing said impurity into said channel region is carried out, after ~~said a~~ gate insulating film and said gate electrode are sequentially formed on a surface side of said channel region, by injecting the impurity from a surface side of said gate electrode before an interlayer insulating film is formed on a surface side of the gate electrode.

7. (Previously Presented) The method of manufacturing a thin-film transistor according to Claim 3, wherein an average projected range of the impurity in said process of introducing an impurity being from a center in a direction of thickness of said channel region to an interface between the channel region and the gate insulating film.

8. (Previously Presented) The method of manufacturing a thin-film transistor according to Claim 3, wherein an average projected range of the impurity in said process of introducing an impurity being from a center in a direction of thickness of said channel region to an interface between the channel region and a layer located on said substrate side.

9. (Previously Presented) The method of manufacturing a thin-film transistor according to Claim 1, wherein a process of introducing said impurity to said channel region being carried out by impurity diffusion from an impurity diffusion source arranged at a lower layer side of said channel region.

10. (Previously Presented) The method of manufacturing a thin-film transistor according to Claim 9, wherein said impurity diffusion being carried out in a crystallization process on a semiconductor film so as to form said channel region.

11. (Previously Presented) The method of manufacturing a thin-film transistor according to Claim 4, wherein said crystallization process being laser annealing on a semiconductor film so as to form said channel region.

12. (Previously Presented) The method of manufacturing a thin-film transistor according to Claim 1, wherein each process carried out after introducing said impurities to said channel region being carried out at a temperature below 400°C.

13. (Previously Presented) The method of manufacturing a thin-film transistor according Claim 1, wherein each process carried out after introducing said impurities to said channel region being carried out at a temperature below 300°C.

14. (Currently Amended) A method of manufacturing a display device comprising a thin-film transistor that is manufactured by:

~~forming a channel region facing a gate electrode through a gate insulating film;~~
~~forming source and drain regions connected to the channel region in a~~
~~semiconductor film that is formed~~ channel, source, and drain regions connected to each other
on a surface of an insulating substrate and under a gate insulating film wherein the gate
insulating film is over and entirely covers the channel region, the source, and the drain
regions; and

forming a recombination center that captures carriers in the channel region by introducing an impurity into said channel region so that a distance between the recombination center and the drain region is shorter than a distance between the recombination center and the source region,

wherein the recombination center is detached from the drain region.

15. (Previously Presented) The method of claim 1, wherein the distance from the recombination center to the drain region and the distance from the recombination center to the source region are in the range of $1/10$ to $1/3$ of the channel length.

16. (Withdrawn) A thin-film transistor, comprising:
a channel region facing a gate electrode through a gate insulating film;
source and drain regions connected to the channel region in a semiconductor film in contact with a surface of an insulating substrate; and
a recombination center in contact with the channel region so that a distance between the recombination center and the drain region is shorter than a distance between the recombination center and the source region.

17. (Withdrawn) The thin-film transistor according to Claim 16, wherein said recombination center is formed by introducing an impurity into said channel region, said impurity being at least one kind selected from the group including inert gases, metals, Group II elements, Group IV and Group V elements.

18. (Withdrawn) The thin-film transistor according to Claim 16, wherein said recombination center is formed by introducing an impurity into said channel region by injecting the impurity from a surface side of said channel.

19. (Withdrawn) The thin-film transistor according to Claim 18, wherein a process of introducing said impurity into said channel region is carried out, after a crystallization process on a semiconductor film so as to form said channel region, by injecting the impurity from a surface side of said channel region.

20. (Withdrawn) The thin-film transistor according to Claim 18, wherein a process of introducing said impurity into said channel region is carried out, after a crystallization process on a semiconductor film so as to form said channel region, by injecting

the impurity from a surface side of said channel region before a process of forming said gate electrode on a surface side of the channel region.

21. (Withdrawn) The thin-film transistor according to Claim 18, wherein a process of introducing said impurity into said channel region is carried out, after said gate insulating film and said gate electrode are sequentially formed on a surface side of said channel region, by injecting the impurity from a surface side of said gate electrode before an interlayer insulating film is formed on a surface side of the gate electrode.

22. (Withdrawn) The thin-film transistor according to Claim 18, wherein an average projected range of the impurity in said process of introducing an impurity being from a center in a direction of thickness of said channel region to an interface between the channel region and the gate insulating film.

23. (Withdrawn) The thin-film transistor according to Claim 18, wherein an average projected range of the impurity in said process of introducing an impurity being from a center in a direction of thickness of said channel region to an interface between the channel region and a layer located on said substrate side.

24. (Withdrawn) The thin-film transistor according to Claim 19, wherein said crystallization process being laser annealing on a semiconductor film so as to form said channel region.